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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/785,640

02/24/2004

Sebastian M. Mundry

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05/10/2006

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EXAMINER

LOPEZ, FRANK D

ART UNIT

PAPER NUMBER

3745

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/785,640

Applicant(s)

MUNDRY ET AL.

Examiner

F. Daniel Lopez

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 3 and 6 is/are allowed.
- 6) ☐ Claim(s) 1,2,4,5,7-14,17-19 is/are rejected.
- 7) ☐ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Applicant's arguments filed February 23, 2006, have been fully considered but they are not deemed to be persuasive.

Applicant argues that none of the references meet the claim limitation "an assembly adapted for use in mining operations and particularly for use with an underground self-advancing roof support as used in such operations". The mining operation is considered intended use and therefore is given no patentable weight.

Applicant argues that Stoll et al does not disclose "a plurality of information elements each of which is associated with "a particular function or measuring point of the hydraulic component"", since Stoll et al merely discloses at most a collection of address decoders, that serve to provide sequential configuration of modules and automatic assignment of addresses. Applicant is incorrect. The "address decoders 32 comprises individual module identification data" (column 4 line 19-20).

Applicant argues that Stoll et al does not disclose the reader units "disposed proximate said corresponding actuator or sensor". Applicant is incorrect. Each of the valves necessarily has an actuator. Since the reader units are proximate the valves, they are proximate the actuators of the valves.

Applicant argues that there are numerous reader units that are not sealed in casting compound and secured within a recess. Applicant is incorrect. The statement is "Inherently, electronic elements are sealed in casting compound, to protect them from the environment". Such electronic elements are microchips, which are sealed at the factory. The reader unit includes some type of memory chip and some type of access chip. Inherently, they are sealed at the factory.

Applicant argues that the microprocessor 84 of Edwards et al is not the reader unit having transmitting and receiving modules, and does not have information elements. Applicant is incorrect. The rejection identifies the information elements as the address switches (88) that uniquely identify the particular hydraulic function (pump,

actuator, etc). The microprocessor 84 reads from the address switches and transmits and receives data from the main controller. Applicant's assertion that the microprocessor does not correspond to the recited reader units, discussing what the specification has to say, is immaterial, since the coils are not claimed.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

Claims 1, 2, 4, 5, 10-14, 18 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Stoll et al. Stoll et al discloses an electro-pneumatic assembly comprising a plurality of valves (part of 19, 23), each disposed in a respective recess in a common valve body (e.g. fig 1), and engaged by a respective actuator (part of 19, 23); a bus type digital interface type data transmission system (28) providing communication between a control unit (27) and each of a plurality of reader units (32, 33) each in communication with a respective one of a plurality of transponder type information elements (column 4 line 9-22), wherein each of the information elements is proximate to and adapted to identify the respective valve.

Claims 8 and 9 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Stoll et al. Stoll et al discloses all the elements of claims 8 and 9, but does not specify that the reader unit and the information element are sealed in casting compound. Inherently, electronic elements are sealed in casting compound, to protect them from the environment. Since the reader unit and the information element are electronic elements, they would be inherently sealed in casting compound. If not, it would have been obvious at the time the invention was made to one having ordinary skill in the art to seal the reader unit and the information element in casting compound, for the purpose of protecting them from the environment.

Claims 1, 2, 5, 7, 11 and 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Edwards et al (see discussion below).

Claim Rejections - 35 USC § 103

Claims 1, 2, 4, 5, 7-14, and 17-19 are rejected under 35 U.S.C. § 103 as being unpatentable over Watanabe et al in view of Mead et al and Edwards et al. Watanabe et al discloses an electro-pneumatic assembly comprising a plurality of valves (each in a respective electro-pneumatic regulator system 10, fig 1 and 2), each disposed in a respective recess in a respective valve body (part of 22), and engaged by a respective actuator (part of 22); a bus type digital interface type data transmission system (14, e.g. column 4 line 6) providing communication between a master control system (12) and each of a plurality of local control systems (26, 28), wherein each of the local control units includes a transmitting module and a receiving module, and is able to transmit information concerning the identity of the respective valve (ID address, see e.g. fig 3); but does not disclose that the assembly is an electro-hydraulic assembly; that each of the respective valve bodies are in a common valve body having respective recesses for the valves; that there is a plurality of reader units, each in communication with a respective one of a plurality of transmitter or transponder type information elements, wherein each of the information elements is proximate to and adapted to identify the respective valve, and in respective second recesses in the valve body and sealed thereon; wherein each reader unit includes a transmitting module and a receiving module.

Mead et al teaches, for an electro-pneumatic hydraulic assembly comprising a plurality of hydraulic valves (in 45 not shown), each engaged by a respective actuator (part of 44, not shown); a bus type digital interface type data transmission system (16, 18, e.g. column 4 line 37-42) providing communication between a master control system (connected to 24) and each of a plurality of local control systems (22); the equivalence of being either an electro-pneumatic assembly and an electro-hydraulic assembly (e.g. column 3 line 67); that the respective valve bodies are each in a respective first recess (located in 44, not shown), in a common valve body (all of the elements 1, 44 assembled into a common body, fig 1), and the local control units are each in a respective second recess (6), in the common valve body (1, 44) and sealed.

Since the systems of Watanabe et al and Mead et al are functionally equivalent in the piston art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to make the electro-pneumatic assembly of Watanabe et al an electro-hydraulic assembly; to locate each of the respective valve bodies of Watanabe et al in a respective first recess, in a common valve body, and locate each of the local control units of Watanabe et al in a respective second recess, in the common valve body and sealed, as taught by Mead et al, as a matter of engineering expediency.

Edwards et al teaches, for an electro-hydraulic assembly comprising a plurality of hydraulic valves (e.g. 30C), each engaged by a respective actuator (controlled by 76); a bus type digital interface type data transmission system (44) providing communication between a master control system (42) and each of a plurality of local control systems (e.g. 30B); that each of the local control systems includes a reader unit (84), which includes a transmitting module and a receiving module, and is in communication with a transmitter type information element (e.g. 88, fig 5), adapted to identify the respective valve (and rest of the local unit).

Since the modified Watanabe et al doesn't show all of the details of the local control system and Edwards et al does; it would have been obvious at the time the invention was made to one having ordinary skill in the art to make the local control units of Watanabe et al include a reader unit, which includes a transmitting module and a receiving module, and is in communication with an information element, adapted to identify the respective valve, as taught by Edwards et al, as a matter of engineering expediency.

Conclusion

Claims 3 and 6 are allowed.

Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

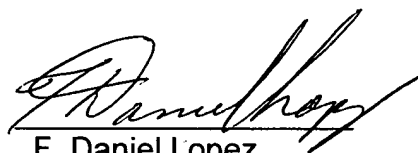
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3745

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571-272-4821. The examiner can normally be reached on Monday-Thursday from 6:15 AM -3:45 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

A handwritten signature in black ink, appearing to read 'F. Daniel Lopez', is written over a horizontal line.

F. Daniel Lopez
Primary Examiner
Art Unit 3745
May 8, 2006